SUMMARY AND CONCLUSIONS

Intracranial aneurysms are acquired lesions that are most commonly located at the branching points of the major arteries coursing through the subarachnoid space at the base of the brain , they are relatively common incidental finding at postmortem examination with a prevalence ranging from 1 to 6 percent among adults in large autopsy series, many of these aneurysms, however are very small and the prevalence of incidental intracranial aneurysms among adults undergoing cerebral angiography is between 0.5 and 1 percent**.**

The majority of intracranial aneurysms (80 to 85 percent) are located in the anterior circulation, most commonly at the junction of internal carotid artery and the posterior communicating artery, the anterior communicating artery complex, or the trifurcation of the middle cerebral artery. Aneurysms of the posterior circulation are most frequently located at the bifurcation of the basilar artery or the junction of a vertebral artery and the ipsilateral posterior inferior cerebellar artery**.**

MDCT is playing an increasing role in the evaluation of patients suspected of having intracranial aneurysms. Regarding the care of the patients with SAH, CTA may offer some intrinsic advantages over Digital Subtraction Angiography (DSA). In the classic clinical scenario, patient clinically suspected of having SAH undergoes CT of the head

CTA may easily be added to this initial imaging examination with little extra time needed and can provide virtually unlimited viewing angles in

three dimensional views which facilitate the assessment of morphologic details relevant to aneurysm therapy **.**

Angiographic-like images of the cerebral vasculature obtained by using rapid contrast infusion and thin-section dynamic CT scanning by MDCT (CTA). Various 3-dimensional display techniques, including shaded surface display, volume rendering, and maximal intensity projection, are used to complement the conventional transaxial images. Such studies provide multiple projections of anatomically complex vascular lesions and delineate their relationships to adjacent structures.

The accuracy of high-resolution axial MDCT scanning in the diagnosis of cerebral aneurysms 3 mm and larger has been reported to be about 97%..

The presence of SAH may complicate the appearance of aneurysms on CT scans. The reported ability of CT scan to reveal SAH caused by ruptured cerebral aneurysms in the acute phase is approximately 95%. This sensitivity decreases over time and is somewhat dependent on the CT scanner resolution and interpreting radiologist. In one study, CT scans detected SAH 100% of the time within 12 hours of the ictus but in only 93% within 24 hours.

With optimal technique, CTA can provide very accurate images which obviate the need for conventional angiography in many circumstances.

CT angiography is very useful to detect aneurysm formation at the anastomosis site. CT angiography is very useful for understanding the relationships between aneurysms and the surrounding structures .

Continuing advances in MDCT scanner and image processing technology promise to further enhance both the accuracy and the practicality of CTA.